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EXAMINER	
HENNING, MATTHEW T	

ART UNIT	PAPER NUMBER
2131	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)
	09/888,316	VOLPERT, THOMAS R.
	Examiner	Art Unit
	Matthew T. Henning	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 26 February 2007.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1,3,5-10,21-23,25-45,47-60 and 62 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,3,5-10,21-23,25-45,47-60 and 62 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 August 2005 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

This action is in response to the communication filed on 2/26/2007.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2/26/2007 have been fully considered but they are not persuasive.

Regarding the applicants' argument that De Maine does not disclose generating a position code using an identified control code for determining positions of each of the 2^n different configurations of n bits in the input data string, the examiner does not find the argument persuasive. The examiner first points out that the prior art rejections of the claims do not rely upon De Maine as teaching identifying a control code. De Maine does, however, disclose an "order code" (LEXICON) which is used in cooperation with a position code routine (SANPAKC-Type 2) for determining positions of each of the 2^n different configurations of n bits in the input data string (See De Maine Col. 101 Paragraph 3– Col. 103 Paragraph 1). Cellier teaches the use of a code index and control codes, as shown below. As such, the examiner does not find the argument persuasive.

Regarding the applicants' argument that De Maine does not disclose the comparison of 2^n different configurations of the input data string with the associated 2^n bit configurations of the "order code" (LEXICON), the comparisons resulting in output values dictated by the position code routine which defines the generated position code, the examiner does not find the argument persuasive. De Maine clearly teaches comparing the bytes of the input with the Type 2 codes which are identified in the LEXICON, for example in Col. 101 Paragraph 4. As such, the examiner does not find the argument persuasive.

Regarding the applicants' argument that De Maine does not disclose that the components of the encrypted data string be an identified control code and a generated position code, the examiner does not find the argument persuasive. First, De Maine has not been relied upon as teaching the identified control code. Second, De Maine clearly teaches combining the "order code" with the position code in order to create the compressed data, as can be seen in De Maine Col. 101 Paragraph 4. As such, the examiner does not find the argument persuasive.

Regarding applicants' argument that Cellier did not disclose that the control code defines respective orders of n bit combinations of binary data, the examiner does not find the argument persuasive. Again, the examiner has not relied upon Cellier as teaching this limitation, but rather Cellier teaches the use of dictionaries of predefined control codes. As such, the examiner does not find the argument persuasive.

All objections and rejections not set forth below have been withdrawn.

Claim Objections

Claim 62 is objected to because of the following informalities: The second to last line recites and generated the position code, which appears to be a typo, and instead should read "the generated position code. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5, 8-10, 21-23, 25-26, 29-33-40, 44-45, 47-55, 59, 60, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Maine et al. (US Patent Number 3,656,178) hereinafter referred to as De Maine, and further in view of Cellier et al. (US Patent Number 5,884,269) hereinafter referred to as Cellier, and further in view of Witten et al. ("On the Privacy Afforded by Adaptive Text Compression") hereinafter referred to as Witten.

Regarding claim 1, De Maine disclosed a method of encrypting an input data string including a plurality of bits of binary data with a processing device communicatively coupled to a memory having executable instructions stored therein which cause the device to implement a method of encryption, the method comprising: receiving an input data string for encryption at the processing device (See De Maine Col. 91 Lines 67-73); determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table); generating an order code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes); generating a position code using the order code in cooperation with a position code routine (SANPAKC Type 2) associated with the order code to determine positions of each of the 2^n different configurations of n bits in an input data string by comparing the 2^n different configurations of the input data string with the associated 2^n different configurations of the order code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code (See De Maine Col. 92 Lines 31-39, Bit Map); and combining the order code and the generated position code to form an encrypted data string (See De Maine Col. 92 Lines 40-44) (See also De Maine Col. 101 Paragraph 3 – Col. 103 Paragraph 1), however, De Maine did not specifically disclose providing a control code index that is defined prior to encryption at the processing device, the

control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, or identifying a control code associated with the determined order code using the control code index.

Cellier teaches that in a coding method which involves the use of a coding table, a table dictionary (control code index) including a plurality of tables should be incorporated and table select (control code), for identifying which table was used in the coding method, should be chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines 24-33).

Witten teaches that in a compression system which uses frequency analysis to adapt to the input text for optimal compression, an initial model, perhaps randomly selected, should be used as a key in order to secure the data being compressed from being decompressed without knowing the initial model, or key (See Witten Section 7).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Cellier in the coding system of De Maine by providing a dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a table select (control code) and including the table select corresponding to the determined LEXICON table with the encoded data in order to allow the decoder to identify which LEXICON table was used for encoding. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide a highly efficient and compact way of mapping the statistics of the input string in order to identify the proper LEXICON table to the decoder.

It further would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Witten in the system of De Maine by using the table select as a key, which is kept secret. This would have been obvious because the ordinary person skilled in the art would have been motivated to secure the compressed data against illicit decompression.

Regarding claim 21, De Maine disclosed a method for encrypting an input data string including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1), the method comprising: receiving an input data string for encryption (See De Maine Col. 91 Lines 67-74); determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table); generating an order code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes); generating a position code using the order code in cooperation with a position code routine associated with the order code to determine positions of each of the 2^n different configurations of n bits in an input data string by comparing the 2^n different configurations of the input data string with the associated 2^n different configurations of the identified control code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code (See De Maine Col. 92 Lines 31-39, Bit Map); and combining the order code and the generated position code to form an encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine did not specifically disclose providing a control code index that is defined prior to encryption at the processing device, the control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, or identifying a control code associated with the determined order code using the control code index.

Cellier teaches that in a coding method which involves the use of a coding table, a table dictionary (control code index) including a plurality of tables should be incorporated and table select (control code), for identifying which table was used in the coding method, should be chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines 24-33).

Witten teaches that in a compression system which uses frequency analysis to adapt to the input text for optimal compression, an initial model, perhaps randomly selected, should be used as a key in order to secure the data being compressed from being decompressed without knowing the initial model, or key (See Witten Section 7).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Cellier in the coding system of De Maine by providing a dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a table select (control code) and including the table select corresponding to the determined LEXICON table with the encoded data in order to allow the decoder to identify which LEXICON table was used for encoding. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide a highly efficient and compact way of mapping the statistics of the input string in order to identify the proper LEXICON table to the decoder.

It further would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Witten in the system of De Maine by using the table select

as a key, which is kept secret. This would have been obvious because the ordinary person skilled in the art would have been motivated to secure the compressed data against illicit decompression.

Regarding claim 23, De Maine disclosed a computer readable medium including computer program instructions that cause a computer to implement a method of encrypting an input data string, including a plurality of bits of binary data (See De Maine Col. 2 Paragraph 1), the method comprising: receiving an input data string for encryption (See De Maine Col. 91 Lines 67-74); determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table); generating an order code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes); generating a position code using the order code in cooperation with a position code routine associated with the order code to determine positions of each of the 2^n different configurations of n bits in an input data string by comparing the 2^n different configurations of the input data string with the associated 2^n different configurations of the identified control code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code (See De Maine Col. 92 Lines 31-39, Bit Map); and combining the order code and the generated position code to form an encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine did not specifically disclose providing a control code index that is defined prior to encryption at the processing device, the control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, or identifying a control code associated with the determined order code using the control code index.

Cellier teaches that in a coding method which involves the use of a coding table, a table dictionary (control code index) including a plurality of tables should be incorporated and table select (control code), for identifying which table was used in the coding method, should be chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines 24-33).

Witten teaches that in a compression system which uses frequency analysis to adapt to the input text for optimal compression, an initial model, perhaps randomly selected, should be used as a key in order to secure the data being compressed from being decompressed without knowing the initial model, or key (See Witten Section 7).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Cellier in the coding system of De Maine by providing a dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a table select (control code) and including the table select corresponding to the determined LEXICON table with the encoded data in order to allow the decoder to identify which LEXICON table was used for encoding. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide a highly efficient and compact way of mapping the statistics of the input string in order to identify the proper LEXICON table to the decoder.

It further would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Witten in the system of De Maine by using the table select

as a key, which is kept secret. This would have been obvious because the ordinary person skilled in the art would have been motivated to secure the compressed data against illicit decompression.

Regarding claim 62, De Maine disclosed an electronic device for encrypting an input data string, including a plurality of bits of binary data, comprising: a processor configured to receive an input data string for encryption (See De Maine Col. 91 Lines 67-73); determining upon reception of the input data string, an order in which to query the presence of each of two 2n different configurations of n bits within an input data string (See De Maine Col. 91 Lines 67-74, 256 Byte Table), and generates an order code associated with the determined order (See De Maine Col. 92 Lines 5-10, Type 2 codes), the processor generating a position code, using the order code in cooperation with a position code routine associated with the order code to determine positions of each of the two 2n different configurations of n bits in the input data string by comparing the 2n different configurations of the input data string with the associated 2n bit configurations of the identified control code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code (See De Maine Col. 92 Lines 31-39, Bit Map) to combine the order code and generated the position code to form an encrypted data string (See De Maine Col. 92 Lines 40-44), however, De Maine did not specifically disclose providing a control code index that is defined prior to encryption at the processing device, the control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, or identifying a control code associated with the determined order code using the control code index.

Cellier teaches that in a coding method which involves the use of a coding table, a table dictionary (control code index) including a plurality of tables should be incorporated and table select (control code), for identifying which table was used in the coding method, should be chosen from the index and included with the encoded data (See Cellier Col. 4 Line 46 – Col. 5 Line 55 and Col. 13 Lines 24-33).

Witten teaches that in a compression system which uses frequency analysis to adapt to the input text for optimal compression, an initial model, perhaps randomly selected, should be used as a key in order to secure the data being compressed from being decompressed without knowing the initial model, or key (See Witten Section 7).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Cellier in the coding system of De Maine by providing a dictionary of LEXICON tables (See De Maine Col. 91 Lines 67-74) which are identified using a table select (control code) and including the table select corresponding to the determined LEXICON table with the encoded data in order to allow the decoder to identify which LEXICON table was used for encoding. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide a highly efficient and compact way of mapping the statistics of the input string in order to identify the proper LEXICON table to the decoder.

It further would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Witten in the system of De Maine by using the table select

as a key, which is kept secret. This would have been obvious because the ordinary person skilled in the art would have been motivated to secure the compressed data against illicit decompression.

Regarding claims 3 and 25 De Maine, Cellier, and Witten disclosed determining an order comprises selecting a predetermined order (See De Maine Col. 91, 256 Byte Table and the rejection of claim 1 above).

Regarding claims 5, 22, and 26, De Maine, Cellier, and Witten disclosed dividing the input data string into a plurality of blocks of data (See De Maine Col. 92 Lines 31-38).

Regarding claim 8, and 30, De Maine, Cellier, and Witten disclosed generating a plurality of block codes associated with a plurality of blocks of data, each block code indicating the number of bits within the associated block of data (See De Maine Col. 101 Lines 45-52).

Regarding claim 9, and 31, De Maine, Cellier, and Witten disclosed combining the each of the plurality of block codes with the control code and the position code for the associated block of data (See De Maine Col. 101 Lines 45-52 and the rejection of claim 1 above).

Regarding claim 10, and 32, De Maine, Cellier, and Witten disclosed that determining an order further comprises determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string (See De Maine Col. 101 Lines 20-25).

Regarding claims 29, and 50, De Maine, Cellier, and Witten disclosed that the computer readable code for determining an order further comprises computer readable code for determining a first order associated with a first block of data and determining a second order

associated with a second block of data wherein the first order is different than the second order (See De Maine Col. 91 Lines 67-74).

Regarding claim 33, De Maine, Cellier, and Witten disclosed that the computer readable code for determining an order further comprises computer readable code for determining an order in which to query the presence of each of 2^n different configurations of n bits based on an analysis of the input data (See De Maine Col. 91 Lines 67-74).

Regarding claims 34 and 48, De Maine, Cellier, and Witten disclosed randomly selecting the control code via a random number generator.

Regarding claims 35, and 49, De Maine, Cellier, and Witten disclosed generating the control code based on a rule set (See the rejection of claim 1 above and De Maine Col. 91 Lines 67-74).

Regarding claims 36 and 51, De Maine, Cellier, and Witten disclosed determining whether to compress the input data string simultaneously as it is encrypted (See De Maine Col. 101 Lines 20-28).

Regarding claims 37 and 52, De Maine, Cellier, and Witten disclosed dividing the input data string into n bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n different configurations of n bits with each of the n bit sequences (See De Maine Col. 91 Lines 67-74); determining the frequency of each of the 2^n different configurations appearing in the input data string (See De Maine Col. 91 Lines 67-74); determining whether a specific relationship exists between values of the frequencies of each of the individual 2^n different

configurations appearing in the input date string wherein the existence of the specific relationship is indicative of the presence of a characteristic within the input data string and wherein the presence of the characteristic determines that the input data string is compressed simultaneously as it is encrypted (See De Maine Col. 101 Lines 20-25); selecting a first position code routine associated with the determined order when the specific relationship exists, the first position code routine being operable to encrypt and compress the input data string (See De Maine Col. 101 Lines 20-25 and Col. 92 Paragraphs 1-2); and selecting a second position code routine associated with the determined order when the specific relationship does not exist, the second position code routine being operable to encrypt the input data string without any compression (See De Maine Col. 101 Lines 20-25 and Col. 92 Paragraphs 1-2).

Regarding claims 38 and 53, De Maine, Cellier, and Witten disclosed that the determining the order in which to query the presence of each of 2^n different configurations of n bits of binary data within an input data string comprises computer readable code for determining the order in which to query the presence of each of 2^2 different configurations of 2 bits within an input data string (See De Maine Col. 91 Lines 47-48).

Regarding claims 39 and 54, De Maine, Cellier, and Witten disclosed dividing the input data string into n bit sequences (See De Maine Col. 91 Lines 67-74); comparing each of the 2^n different configuration of n bits of binary data with each of the n bit sequences of the input data string (See De Maine Col. 91 Lines 67-74); determining a first number representative of the number of times the most frequently occurring 2^n configuration appears in the input string; determining a second number representative of the number of times the second most frequently

occurring 2^n configuration appears in the input string; determining a third number representative of the number of times the third most frequently occurring 2^n configuration appears in the input string determining a fourth number representative of the number of times the fourth most frequently occurring 2^n configuration appears in the input string (See De Maine Col. 91 Lines 67-74); determining an order in which to query the presence of each of 2n different configurations of n bits within the input data string based on a sequence of 2 bit combinations, the determined order beginning with a most occurring frequency and ending with a least occurring frequency (See De Maine Col. 92 Paragraph 1) selecting a first position code routine associated with the determined order when the first number is greater than the sum of the third number and the fourth number, the first position code routine being operable to encrypt and compress the input data string (See De Maine Col. 92 Paragraphs 1-2 and Col. 101 Lines 20-27); and selecting a second position code routine associated with the determined order when the first number is not greater than the sum of the third number and the fourth number, the second position code routine being operable to encrypt the input data string without any compression (See De Maine Col. 92 Paragraphs 1-2 and Col. 101 Lines 20-27).

Regarding claims 40 and 55, De Maine, Cellier, and Witten disclosed that identifying a control code associated with the determined order, further comprises: identifying a first control code associated with the determined order when the first position code routine is selected; and identifying a second control code associated with the determined order when the second position code routine is selected wherein the first control code is different than the second control code (See De Maine Col. 92 Paragraphs 1-2).

Regarding claims 44 and 59, De Maine, Cellier, and Witten disclosed selecting a default order (See De Maine Col. 91 Lines 67-74 and the rejection of claim 1 above).

Regarding claims 45 and 60, De Maine, Cellier, and Witten disclosed determining an order based on the relative frequencies of the combinations of n bits (See De Maine Col. 91 Lines 67-74).

Regarding claim 47, De Maine, Cellier, and Witten disclosed determining the order based on an analysis of the input data string (See De Maine Col. 91 Lines 67-74).

Claims 6-7, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Maine, Cellier, and Witten as applied to claims 5, and 26 respectively, and further in view of Shimizu et al. (US Patent Number 6,772,343) hereinafter referred to as Shimizu.

De Maine, Cellier, and Witten disclosed blocking the input data into block sizes of a certain range (See De Maine Col. 92 Lines 31-38) but failed to disclose determining the size of the blocks randomly or according to a rule set.

Shimizu teaches that in a block encoding system, generating each block size randomly makes illicit access of the data more difficult and makes the cryptosystem more robust (See Shimizu Col. 5 Lines 9-18). Shimizu further teaches that the random sizes are generated mathematically using a seed (See Shimizu Col. 15 Paragraphs 3-7).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Shimizu in the invention of De Maine, Cellier, and Witten to mathematically generate random block lengths. This would have been obvious because the

ordinary person skilled in the art would have been motivated to provide the added security of random block lengths to the compressed data.

Claims 41-42, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Weiss (US Patent Number 5,479,512).

De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-92), but failed to disclose re-encrypting the data after the compression was performed.

Weiss teaches that after compression is performed, the compressed data should be XORed with a key, in small blocks at a time (See Weiss Col. 5 Paragraphs 4-5 and Col. 6 Paragraph 3 and Fig. 3A).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Weiss in the compression system of De Maine, Cellier, and Witten by XORing the coded data with a key in small blocks at a time. This would have been obvious because the ordinary person skilled in the art would have been motivated to protect the data from unauthorized observing.

Claims 41, 43, 56, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Maine, Cellier, and Witten as applied to claim 1 above, and further in view of Butler et al. (US Patent Number 5,861,887) hereinafter referred to as Butler.

De Maine, Cellier, and Witten disclosed compressing input data (See De Maine Cols. 91-92), but failed to disclose re-encrypting the data after compression was performed.

Butler teaches that compression should be repeated as many times as necessary in order to make the data being compressed sufficiently small (See Butler Col. 3 Paragraph 2).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Butler in the compression system of De Maine, Cellier, and Witten by repeating the compression on the coded output as many times as necessary to get the output to be sufficiently small. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide more efficient storage of the audio data.

Conclusion

Claims 1, 3, 5-10, 21-23, 25-45, 47-60, and 62 have been rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Henning
Assistant Examiner
Art Unit 2131
5/15/2007

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100